National Aeronautics and Space Administration

## **Goddard Space Flight Center**

Greenbelt, MD 20771



March 10, 2006

Reply to Attn of:

410

TO:

NASA Headquarters

Attn: Associate Administrator Science Mission Directorate/Dr. Cleave

FROM:

100/Director

SUBJECT:

Interstellar Boundary Explorer (IBEX) Mission Confirmation Readiness Review

(CRR) Findings

The Goddard Program Management Council, chaired by the Deputy Director, Dr. Michael Ryschkewitsch, conducted the Confirmation Readiness Review (CRR) on February 24, 2006. The review included science and mission overviews, a programmatic status, an Independent Integrated Review Team report, a Resource Analysis Office report and Explorer Office assessment and recommendations.

Based upon the findings of the review process, Goddard-Space Flight Center (GSFC) recommends confirmation of the IBEX mission for the following reasons: the Principal Investigator (PI) has assembled a strong, experienced and capable team; the IBEX team has performed successful risk reduction activities during Phase B; the technology readiness is at a mature level; and the PI has maintained all science requirements for the mission since the original proposal.

The spacecraft bus is from a commercial product line. Since selection, the Explorers review process has revealed that additional requirements in the areas of mission safety, parts selection and screening and powered run time are needed for enhanced reliability and risk reduction. It is, therefore, recommended that an additional \$4.5M be added to the IBEX mission to accommodate the increased requirements. It is recommended that this funding be held by Explorers program office.

Given the additional funding, the adequately funded schedule reserves and the existing dollar reserves, the IBEX mission is achievable and can meet the June 2008 launch date within the recommended \$149 (RY) cost cap.

A GSFC independent cost and schedule assessment suggests that a potential schedule augmentation may be required to accomplish launch readiness. It is, therefore, suggested that an additional \$6M be held by the Explorer program office should this additional time be required.

In light of the above, the GSFC considers IBEX to represent a medium risk (single string) Small Explorer mission and recommends that it be confirmed.

Edward J. Weiler

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